

ordinary physical revolutions which the annals of our planet offer. In the midst of a continent, at a distance of thirty-six leagues from the sea coast and forty-two leagues from any active volcano, a tract of land of about twelve square kilometres was upheaved in the form of a bladder during the night of 1759 September 28-29. In the centre of a multitude of ignited cones there suddenly arose six mountains of from 1,300 to 1,600 feet above the original level of the neighbouring plains. The principal mountain, the volcano of Jorullo, has an altitude of 1,696 feet. Its eruptions continued without intermission down to the month of 1760 February."

We may well suppose that the volcanic dust in so similar an eruption to those of Krakatoa and Mount Pelée had travelled to the atmosphere of the Scandinavian peninsula by the time of the eclipse.

The previous instance seems to have been in 1642 April mentioned by Wendelinus. Arago remarks: "The Tunguragua made an explosion in 1641," also (speaking of the Philippine Islands), "Aringway made an eruption in 1641."

As to the cases of 1620 and 1601, I have not hitherto noticed any account of previous volcanic action, but we may well believe such to have taken place, as it cannot be expected that all the eruptions in the Pacific were recorded at that date.

Wendelinus (*Eclipses Lunares*) speaks of another case of darkness of the eclipsed Moon, "a matter that Tycho has left in writing about the eclipse of 1588," and Arago says, "The two peaks, very close to each other, called the Fuegos de Guatemala, experienced terrible eruptions in the year 1586."

Something may therefore be said in support of the conjecture that the presence of volcanic dust in the upper regions of the air may be connected with the obscurity of the Moon's surface on the occasions referred to.

Melplash Vicarage, Bridport: April 18.

*Eclipse of the Moon of 1903 April 11, observed at the
Royal Observatory, Greenwich.*

(Communicated by the Astronomer Royal.)

In addition to observation of occultations, preparations were made to observe the times of transit of the first and second limbs of the Moon in order to compare the diameters as found from bright and dark limbs respectively. For this purpose additional wires were inserted in the Merz refractor (aperture 13 in.) and in the guiding telescope (aperture 10 in.) of the astrographic

equatorial. Owing to clouds only a few observations were obtained, the results of which are given in the following table:—

Sidereal Time of the Passage of the Moon's Diameter.

Observer.	Instrument.	Aper- ture	Duration 1L and 2L Bright.			No. of transits.	Total No. of wires.	Duration 1L Bright. 2L Eclipsed.			No. of transits.	Total No. of wires.
			in.	m	s			m	s			
Mr. Dyson ...	Merz Re- fractor.	13	2	11	11	1	7					
Mr. Hollis ...	Astrographic Guiding Telescope.	10		11	44	2	14					
Mr. Crommelin	Sheepshanks Equatorial.	6.8		11	16	8	20	2	11	18	2	10

The tabular time of transit given in the *Nautical Almanac* is 2^m 11^s.19.

The eclipsed limb was extremely faint, and not considered observable by Mr. Dyson and Mr. Hollis.

Results of Micrometric Measures of Double Stars made with the 28-inch Refractor at the Royal Observatory, Greenwich, in the year 1902.

(Communicated by the Astronomer Royal.)

The measures were made with a bifilar position micrometer on the 28-inch refractor, focal length 28 feet. The power generally used was 670, but when the definition permitted a power of 1120 was employed for observing very close pairs. A blue glass shade was employed to diminish the light and irradiation when bright stars were observed. The observations were made in variously coloured fields or in a dark field with illuminated wires. The initials in the last column are those of the observers, viz.—

L.	Mr. Lewis.	W. B.	Mr. Bowyer.
B.	Mr. Bryant.	H. F.	Mr. Furner.

Micrometric Observations of Double Stars at the Royal Observatory, Greenwich.

Star's Name.	R.A. 1900.		N.P.D. 1900.	Posi- tion Angle.	Dis- tance.	No. of Nights.	Mags.		Epoch 1902.	Obs.
	h	m								
β 1155 ...	0	2	86 23	92.9	0.59	1	8.7	9.3	.923	L.
β 1014 ...	0	2	58 53	356.1	1.18	1	7.0	12.5	.014	L.
\oslash 2... ..	0	8	63 35	43.9	0.57	2	6.5	8.0	.466	L.
β 1027 ...	0	10	69 3	187.5	1.57	2	7.5	10.9	.469	L.